Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 8 (cancelled)

Claim 9 (currently amended) : A computer implemented system for aggregating and segmenting probabilistic distributions in real time comprising the steps of:

an input device for creating a target profile from the input of one or more users using stated preferences or expectations relative to data about which probabilistic distributions exist;

a computer program for simulating the future behavior of the target profile or comparative profiles with historical data;

a second computer program for identifying substitute profiles that match or improve upon the target profile or comparative profiles;

a third computer program for modifying a target profile or comparative profiles by selectively adding, eliminating, or changing particular probabilistic distribution characteristics in response to user-defined parameters or movements of an interactive user operated control;

a fourth computer program for codifying any discrepancies between a target profile and comparative profiles;

a fifth computer program for sensing and tracking single or multiple probabilistic distributions;

a sixth computer program for sensing and tracking multiple segments of a single aggregate probabilistic distribution; and

a display for generating results in a continual manner so that immediate feedback is displayed to the user as a discrepancy indicator ~~The system of claim 1,~~ wherein the step of codifying any discrepancies between a target profile and a comparative profile further comprises the step of calculating such discrepancies according to the following formula:

EQU1 $\text{Discrepancy} = | E[X_{Target}] - E[X_{Comparative}] | / (\text{Var} [X_{Target}])^{0.5}$,

where $E[X_{Target}]$ represents the mean of a target data series, $E[X_{Comparative}]$ represents the mean of a comparative data series, and $\text{Var} [X_{Target}]$ represents the variance of a target data series; and

where respective values are weighted per user specifications and where the sum of weights is required to total one hundred percent.

Claim 10 (currently amended) : The system of claim ~~1~~ 9, wherein the step of codifying any discrepancies between a target profile and a comparative profile further comprises the step of computing color displays according to the result of EQU1 whereby a value less than or equal to 1.00 is coded green, a value greater than 1.00 but less than or equal to 2.01 is coded yellow, and a value greater than 2.01 is coded red.

Claim 11 (cancelled)

Claim 12 (currently amended) : The system of claim ~~1~~ 9, wherein the step of aggregating marginal probability distributions into a single probabilistic distribution, or combining multiple aggregated probabilistic distributions, is defined by the following formula:

EQU2 $P_{X_1,\ldots,X_k}(t_1,\ldots,t_k) = \Sigma_{(x_1,\ldots,x_k)} f_{X_1,\ldots,X_k}(x_1,\ldots,x_k) t_1^{x_1} \ldots t_k^{x_k}$; and

where $P_X(t)$ is defined as a probability generating function of data series X expressed as $\Sigma f_X(x)t^x$ in the multivariate case when X is discrete; and

where for a data series $x_1,\ldots,x_k$, the joint probability density function is defined as $f_{X_1,\ldots,X_k}$; and

where for any subset of $\{X_1, X_2,\ldots,X_k\}$, the joint probability distribution is defined as a marginal probability distribution of $f_{X_1,X_2\ldots,X_k}$.

Claim 13 (currently amended) : The system of claim ~~1~~ 9, wherein the step of isolating a segment of an aggregated probabilistic distribution, called a marginal probability distribution, is defined by the following formula:

EQU3 $P_{X_j}(t_j) = P_{X_1,\ldots,X_j,\ldots,X_k}(1,\ldots,1,t_j,1,\ldots,1)$; and

where $P_{X_j}(t_j)$ is defined as a probability generating function of data series X_j expressed as $\Sigma f_{X_j}(x_j)t^{x_j}$ in the univariate case when X_j is discrete.

Claims 14 – 23 (cancelled)

Claim 24 (currently amended) : The system of claim ~~23~~ 13, further comprising the step of aggregating said expert expectations using EQU1 and if required EQU4 defined as:

EQU4 $\rho_s (\text{Var } [X_i])^{0.5} (\text{Var } [X_j])^{0.5}$,

where ρ_s represents the correlation coefficient between expectations data series X_i and X_j, Var $[X_i]$ represents the variance of data series X_i, and Var $[X_j]$ represents the variance of data series X_j.

Claims 25 - 35 (cancelled)

Claim 36 (currently amended) : A computer implemented method and apparatus for aggregating and segmenting probabilistic distributions in real time, comprising the steps of:

creating a target profile from the input of one or more users using stated preferences or expectations relative to data about which probabilistic distributions exist;

simulating the future behavior of the target profile with historical data;

identifying substitute profiles that match or improve upon the target profile;

modifying a target profile by selectively adding, eliminating, or changing particular probabilistic distribution characteristics in response to user-defined parameters or movements of an interactive user operated control; and

codifying any discrepancies between a target profile and a comparative profile by ~~The method of claim 28 wherein the step of codifying any discrepancies between a target profile and a comparative profile further comprises the step of~~ calculating such discrepancies according to the following formula:

EQU1 Discrepancy = $| E[X_{Target}] - E[X_{Comparative}] | / (\text{Var } [X_{Target}])^{0.5}$,

where $E[X_{Target}]$ represents the mean of a target data series, $E[X_{Comparative}]$ represents the mean of a comparative data series, and Var $[X_{Target}]$ represents the variance of a target data series; and

where respective values are weighted per user specifications and where the sum of weights is required to total one hundred percent.

Claim 37 (currently amended) : The method of claim ~~28~~ 36, wherein the step of codifying any discrepancies between a target profile and a comparative profile further comprises the step of computing color displays according to the result of EQU1 whereby a value less than or equal to 1.00 is coded green, a value greater than 1.00 but less than or equal to 2.01 is coded yellow, and a value greater than 2.01 is coded red.

Claim 38 (cancelled)

Claim 39 (currently amended) : The method of claim ~~28~~ 36, wherein the step of aggregating marginal probability distributions into a single probabilistic distribution, or combining multiple aggregated probabilistic distributions, is defined by the following formula:

EQU2 $P_{X_1,\ldots,X_k}(t_1,\ldots,t_k) = \Sigma_{(x_1,\ldots,x_k)} f_{X_1,\ldots,X_k}(x_1,\ldots,x_k) t_1^{x_1} \ldots t_k^{x_k}$,

where $P_X(t)$ is defined as a probability generating function of data series X expressed as $\Sigma f_X(x)t^x$ in the multivariate case when X is discrete; and

where for a data series $x_1,\ldots,x_k$, the joint probability density function is defined as $f_{X_1,\ldots,X_k}$; and

where for any subset of $\{X_1, X_2,\ldots,X_k\}$, the joint probability distribution is defined as a marginal probability distribution of $f_{X_1,X_2\ldots,X_k}$.

Claim 40 (currently amended) : The method of claim ~~28~~ 36, wherein the step of isolating a segment of an aggregated probabilistic distribution, called a marginal probability distribution, is defined by the following formula:

EQU3 $P_{X_j}(t_j) = P_{X_1,\ldots,X_j,\ldots,X_k}(1,\ldots,1,t_j,1,\ldots,1)$,

where $P_{X_j}(t_j)$ is defined as a probability generating function of data series X_j expressed as $\Sigma f_{X_j}(x_j)t^{x_j}$ in the univariate case when X_j is discrete.

Claims 41 - 52 (cancelled)

Claim 53 (currently amended) : The method of claim ~~52~~ 36, further comprising the step of aggregating said expert expectations using EQU1 and if required EQU4 defined as:

EQU4 $\rho_s (\text{Var}[X_i])^{0.5} (\text{Var}[X_j])^{0.5}$,

where ρ_s represents the correlation coefficient between expectations data series X_i and X_j, Var $[X_i]$ represents the variance of data series X_i and Var $[X_j]$ represents the variance of data series X_j.

Claims 54 – 56 (cancelled)